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ABSTRACT

This publication is a resource guide to energy education and conservation materials and organizations. The stated purpose of this guide is to make teachers and other interested citizens of Oregon aware of some of the resources and sources of information on energy conservation education that are available in Oregon and in the United States and Canada. The first section lists the resources for energy education giving: (1) agency or organization name and address; (2) agency functions; (3) publications or films available from the agency; and (4) additional information about the agency and about speakers, if available, from the agency. The second section is an annotated bibliography of curriculum guides and teacher resource books. The third section lists multimedia materials with sources and addresses. The fourth section lists periodicals in the Oregon area that relate to energy conservation education. (MR)

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ENERGY CRISIS

SE 025 412

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RESOURCE GUIDE FOR ENERGY CONSERVATION EDUCATION

SUMMER 78

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Salem, Oregon
Dr. Fred Miller
Director

Introduction

The purpose of this resource guide is to make teachers and other interested citizens of Oregon aware of *some* of the resources and sources of information on energy conservation education that are available in Oregon and elsewhere in the United States and Canada.

The compilers of the information contained within this document are simply presenting information and not promoting any one resource or source of information over another.

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SECTION I
RESOURCES FOR ENERGY EDUCATION/ CONSERVATION

Resources for Energy Education/Conservation

Agency/Organization	Agency Functions	Publications/Films	Speakers
Bonneville Power Admin. P.O. Box 3621 Portland, OR 97208 **Contact Person:** Don Davey Energy Conservation Officer (503) 234-3361	Wholesale power marketing agency for the northwest region	**Pamphlets:** ***What's Your E.Q.?*** ***Energy Film Index*** ***Energy Saving Actions*** **Newsletters:** ***Energy Alert***-Monthly **Films:** ***1. Saving Energy at Home*** — a 13-minute film. Pinpoints the major sources of energy waste around the house and gives the viewer specific tips on how to cut down on home energy consumption. ***2. Saving Energy on the Road*** — a 15-minute film. Illustrates a variety of ways to reduce driving costs and maintain safe driving habits. ***3. Saving Energy, it Begins at Home*** — a 28-minute film. Describes actions taken in Pennsylvania to insulate existing homes and new homes. ***4. Energy/America*** — a 20-minute film. Designed to inform people of the severity of the energy crisis and to describe attempts by the Dept. of the Interior and others to solve this problem.	**Western Oregon** BPA: Portland Area Office 919 NE 19th Ave. Portland, OR 97208 Contact: Deannie Williams (503) 234-3361 Ext. 4557 BPA: Central Office 1002 NE Holladay Portland, OR 97208 Contact: Don Davey (503) 234-3361 Ext. 5120 **Eastern Oregon** BPA's Walla Walla Area Office West 101 Poplar Walla Walla, WA 99362 Contact: Roy Nishi (509) 525-5500

City of Portland City Hall 1220 S.W. 5th Avenue Portland, OR **Contact Person:** Angus Duncan Energy Ass't to the Mayor (503) 248-4266			Speakers assigned on an ad hoc basis.

Resources for Energy Education/Conservation

Agency/Organization	Agency Functions	Publications/Films	Information
Environmental Education Association of Oregon P.O. Box 5484 Eugene, OR 97405 (503) 221-2971 **Contact Person:** President: Ernest McDonald U.S. Forest Service 1220 S.W. Third Ave. Portland, OR (503) 221-2971	Promotes environmental education for educators and students in the schools of Oregon.	**Newsletters:** *Clearing*—in conjunction with the Portland State Environmental Education Project.	Promotes, assists and sponsors pre-service and in-service training for educators. Conducts an annual conference on the environment. **Speakers:** Speakers assigned on an ad hoc basis.
Eugene Water & Electric Board 500 East 4th Avenue Eugene, OR 97440 **Contact Person:** John Scofield Conservation Center Mgr. (503) 484-1125	Power distributor for the Eugene Area		Reach the contact person for talks on the following subjects: (a) Energy Efficient Buildings (b) Weatherization Techniques (c) Conservation n the NW (Lane County) (d) Home Energy Audit & Hea Loss Calculation, and (e) EWEB's Energy Conservation Center
Institute on Public Affairs Research (IPAR) 516 S.E. Morrison Portland, OR 97204 **Contact Person:** Andy Jacobs	Arranges for speakers for schools from their list of contacts	**Pamphlet:** ***Community Resources for Teachers*** Describes the various IPAR publications that can be made available for teachers	Speakers assigned on an ad hoc basis. The role of energy in satisfying your daily needs and wants. Energy sources for present & future. Are government controls of production and consumption necessary? How much impact does price of energy have on supply, demand and conservation? Nuclear plants potential as source of energy.

Resources for Energy Education/Conservation

Agency/Organization	Agency Functions	Publications/Films	Information
Institute on Public Affairs Research (IPAR) (contd.)			Provides information on government vs. private development, production, and distribution of energy.
League of Women Voters of the United States 1730 M. Street, N.W. Washington, DC 20036 **Contact Person:** Local organization in your telephone directory	Active women's organization which lobbies and offers a wide range of educational materials on energy and environmental matters to schools.	**Publications:** ***Energy Dilemmas:*** An overview of U.S. Energy problems and issues ***Energy Options:*** Examining sources and defining government's role	Provides publications for use in teacher pre-service and in-service workshops. **Speakers:** Speakers assigned on an ad hoc basis.
Metropolitan Service Dist. 1220 S.W. Morrison Room 300 Portland, OR 97205 **Contact Person.** Karen Tweten (503) 248-5470		Publications on recycling, drainage, and other environmental factors **Films:** Slide shows and films on recycling, drainage, and other environmental factors	Speakers assigned on an ad hoc basis.
Northwest Food Processors Association 2828 S.W. Corbett Portland, OR 97201 **Contact Person:** Tom Ethen Assistant Manager Technical Programs (503) 226-2848	Represents food processors in Oregon and Washington	**Newsletter:** ***Energy Update*** published on an as-needed basis **Films:** ***Energy Conservation — A Part of Everyone's Job*** an 11-minute cassette tape presentation on ways to save energy in a processing plant.	**Speakers:** Speakers assigned on an ad hoc basis.
Northwest Natural Gas 123 N.W. Flanders Portland, OR 97209 **Contact Person:** Al Gould Public Relations Director (503) 226-4211, Ext. 556	Distributor of natural gas		Speakers are assigned on an ad hoc basis.

Resources for Energy Education/Conservation

Agency/Organization	Agency Functions	Publications/Films	Information
National Science Teachers Association 1742 Connecticut Ave., N.W. Washington, DC 20009 **Contact Person:** John M. Fowler, Project Director King C. Kryger, Associate Project Director	Develops and disseminates curriculum materials on energy for classroom teachers nationwide. Promotes energy literacy for educators and students nationwide.	**Publications:** ***The Energy We Use*** — Gr. 1-2 ***Community Workers and the Energy They Use*** Gr. 2-3 ***Energy, Engines, and the Industrial Revolution*** Grs. 8-9 ***Transportation and the City*** Gr. 8-9 ***How a Bill Becomes a Law to Conserve Energy*** Gr. 9, 11, 12 ***Agriculture, Energy, and Society*** Gr. 10-12 ***Energy and Transportation*** Available in Draft Form ***Networks: How Energy Links People, Goods, and Services*** Gr. 4-5 ***Two Energy Gulfs*** Gr. 6-7 ***Bringing Energy to the People: Ghana and the U.S.*** Gr. 6-7 ***Mathematics in Energy*** Gr. 7-8 ***An Energy History of the United States*** Gr. 8-9 ***Energy in the Global Marketplace*** Gr. 9, 10, 11 ***The New Westward Movement*** Gr. 11 ***U.S. Energy Policy — Which Direction?*** **Background Materials** ***Energy-Environment Sourcebook*** by John M. Fowler ***Energy-Environment Materials Guide*** Kathryn Mervine & Rebecca Cawley ***Energy-Environment Mini-Unit Guide*** by Stephen Smith, editor ***Award Winning Energy Education Activities*** by Helen M. Carey, Editor	Develops and disseminates energy curriculum materials for grades 1-12, post secondary schools and teachers.

Resources for Energy Education/Conservation

National Science Teachers Association (contd.)

Publications/Films

Publications:

FACT SHEETS on ALTERNATIVE ENERGY TECHNOLOGIES (19 sets)

EDM-1043-1 Fuels from Plants (Bioconversion)
EDM-1043-2 Fuels from Wastes (Bioconversion)
EDM-1043-3 Wind Power
EDM-1043-4 Electricity from the Sun I (Solar Photo voltaic Energy)
EDM-1043-5 Electricity from the Sun II (Solar Thermal Energy Conversion)
EDM-1043-6 Solar Sea Power (Ocean Thermal Energy Conversion)
EDM-1043-7 Solar Heating and Cooling
EDM-1043-8 Geothermal Energy
EDM-1043-9 Energy Conservation Homes and Buildings
EDM-1043-10 Energy Conservation Industry
EDM-1043-11 Energy Conservation: Transportation
EDM-1043-12 Conventional Reactors
EDM-1043-13 Breeder Reactors
EDM-1043-14 Nuclear Fusion
EDM-1043-15 New Fuels from Coal
EDM-1043-16 Energy Storage Technology
EDM-1043-17 Alternative Energy Sources: Environmental Impacts
EDM-1043-18 Alternative Energy Sources: A Glossary of Terms
EDM-1043-19 Alternative Energy Sources A Bibliography

Newsletter:

Energy & Education (bi-monthly, free)

Resources for Energy Education/Conservation

Agency/Organization	Agency Functions	Publications/Films	Information
1000 Friends Of Oregon Suite 407, Dekum Bldg. Portland, OR 97204 (503) 233-5408 **Contact Person:** Henry R. Richmond, III	Helps implement Oregon's land use laws, which call for the containment of urban sprawl and the preservation of prime farmland. 1000 Friends contributes to the realization of these goals (1) providing free legal and technical advice to citizens and officials seeking to implement the law at the local level, and (2) providing free legal counsel to individuals or groups in cases of precedential value.	**Periodicals:** Quarterly progress reports, Copies of Oregon's land use laws and related court decisions. **Newsletter:** *1000 Friends of Oregon* Newsletter Monthly/free	
Oregon Clean Water Project 020021½ S.W. Palatine Hill Rd. Portland, OR 97219 (503) 636-7893 **Contact Person:** Christopher M. Kittell	Support water pollution control programs as a non-profit organization. Publishs a periodic newsletter and sponsors a yearly water pollution conference.		
Oregon Department of Energy Labor and Industries Bldg. Salem, OR 97310 (503) 378-4129 **Contact Person:** William Sanderson	Provides comprehensive state leadership on energy planning and forecasting. Clearinghouse for information retrieval and dissemination. Possible funding source for energy related projects.	**Publications:** *The Oregon Sunbook:* A Solar Perspective *Something New:* 1977 Weatherization incentives for Oregon homeowners *Saving Energy, Saving Money: It Makes Sense* *Oregon's Energy Future:* First Annual Report, January 1, 1977 *Oregon's Energy Future:* Second Annual Report, January 1, 1978 *Guidelines:* Energy conservation in state buildings **Films:** Films and slides are available	Conducts, cosponsors, or supports conferences, workshops, courses, and seminars that focus on energy related issues. **Speakers:** As available

Resources for Energy Education/Conservation

Agency/Organization	Agency Functions	Publications/Films	Information
Oregon Department of Environmental Quality 1234 S.W. Morrison Street Portland, OR 97205 (503) 229-5327 **Contact Person:** Public Affairs Officer Dave Gemma	Charged with reducing the pollution of air, water and land, using the framework of environmental laws established by the Oregon Legislature.	**Publications:** Brochures, pamphlets available free **Newsletter:** *The Ambience*, monthly/free **Films:** Films and film catalogs available free	Provides literature and technical expertise for educators upon request. **Speakers:** Speakers assigned on an ad hoc basis.
Oregon Environmental Council 2637 S.W. Water Avenue Portland, OR 97201 (503) 222-1963 **Contact Person:** Executive Director. Larry Williams	Encourages citizen, legislative, and administrative action toward the protection of the environment and the creation of communities which reflect that value through creative planning, education and wise stewardship.	**Publications:** *Oregon's Bottle Bill — Two Years Later* **Periodicals:** **Newsletters:** *Earthwatch Monthly*	Assists teachers with access to information relative to environmental/energy issues. **Speakers:** Speakers assigned on an ad hoc basis.
Oregon Environmental Foundation 2637 S.W. Water Avenue Portland, OR 97201 (503) 222-1963	Supports efforts throughout the state on scientific and educational aspects of environmental issues and concerns.	**Publications:** *Environmental Communications Access Guide*	Assists and/or provides the following resources: Grants to teachers and educators for environmental education activities involving curriculum development, aids to teachers, teacher training seminars, classroom activities, and other activities. Grants to community and environmental organizations for projects dealing with environmental problems. Grants to individuals for research or other work dealing with environmental concerns. Internships allowing college students to gain credit for working with the Foundation on various activities. Grants to sponsor, cosponsor, or support conferences, workshops, and seminars that focus on issues of environmental concern. Publication and distribution of environmental education information and material.

Resources for Energy Education/Conservation

Agency/Organization	Agency Functions	Publications/Films	Information
Oregon Environmental Foundation — (contd.)			Provides a resource library of environmental education materials, curriculum guides, teachers' aids, simulation games, environmental newsletters, and other material. Grants to support citizen participation in valuable environmental conferences and seminars. Contact listings for environmental education groups and individuals throughout the state. Environmental Issues files, comprehensive collections of information on environmental issues in Oregon. Speakers Bureau of over 70 speakers on a wide range of topics for schools, community groups and meetings.
Oregon Institute of Technology Geo-Heat Energy Center Klamath Falls, OR 97601 **Contact Person:** Director: Paul Lienau	Serves as an information center on matters pertaining to geo-heat, low temperature non-electric space and process heating. Currently engaged in doing research in aqua-culture (fish farming) using geothermal heat.	**Publications:** Contact the Energy Center for a list of materials available.	Speakers assigned on an ad hoc basis. **Speakers:** Available
Oregon League of Environmental Voters Oregon Environmental Council 2637 S.W. Water Avenue Portland, OR 97201 **Contact Person:** Chairperson: John Platt	Promotes the election of national, state and local government representatives who will work actively to protect our environment. Works in close cooperation with environmental groups throughout Oregon, as a nonpartisan campaign committee. Publicizes the voting records and attitudes of candidates toward environmental issues. Supports approved candidates with endorsements, monetary donations, and voluntary manpower.		

Resources for Energy Education/Conservation

Agency/Organization	Agency Functions	Publications/Films	Information
Oregon Museum of Science and Industry Energy Center 4015 S.W. Canyon Rd. Portland, OR 97221 (503) 248-5920	Provides displays, conducts energy related classes for students at OMSI and in local schools.	**Newsletters:** *Energy Center News*/ irregular/free	Conducts classes on energy at OMSI for students. Travels to local schools for presentations on energy related topics. Assists with teacher pre-service and in-service training. **Speakers:** Speakers assigned the following topics:
Oregon Shores Conservation Coalition P.O. Box 578 Rockaway, OR 97136 (503) 355-2666 **Contact Person:** Executive Director: Dr. George Diel	Stimulate effective citizen participation in all levels of decision making in the following areas: coastal zone planning and management: protection and enhancement of the coast's natural resource and economic base: and related land-use planning activity. Available information includes an ***Oregon Shores*** newsletter, citizen involvement workshops, position statements, testimony at hearings and special "Coast Watch Reports."	**Publications:** *"Coast Watch Reports"* **Newsletters:** *Oregon Shores*	Conducts citizen involvement workshops. **Speakers:** Speakers assigned on an ad hoc basis.
Oregon State University Office of Energy Research and Development Corvallis, OR 97331 (503) 754-3004 **Contact Person:** Information Coordinator: Dr. Owen Osborne	Serves as an energy focal point to stimulate energy research projects on campus, and to assist faculty members in securing funds to do research projects.	**Publications:** Contact Dr. Osborne for information on available publications, periodicals, newsletters, films and etc.	Conducts, cosponsors, or supports conferences, workshops, fairs, seminars, and etc. that focus on energy related issues. **Speakers:** Speakers assigned on an ad hoc basis.

Resources for Energy Education/Conservation

Agency/Organization	Agency Functions	Publications/Films
Pacific Power & Light 920 S.W. 6th Portland, OR 97204 **Contact Person:** Ron Fox Educational Services Planner (503) 243-4345	Power distributor	**Publications:** (a) ***Home Energy Handbook*** (b) ***Do-it-yourself Home Insulation Guide*** (c) ***Putting up with Storm Windows*** (d) ***Hot Water Handbook*** **Films:** ***The Magic Lantern — 1977*** — 21 minutes. Take a look at electricity, and how our uses for it have changed over the years. See what the future holds for supplemental energy sources, coal, solar power, nuclear power, and even conservation (Jr. High to Adult) ***Energy 2000 — 1977*** — 24 minutes. Will there be enough power by the year 2000? What kind of energy alternatives are available to us, and what part will they play in the overall energy picture? Examine the ability of each source to help meet the nation's needs for the next 25 years and for the centuries beyond. (Jr. High to Adult) ***Energy Realities — 1977*** — 22 minutes. With so many energy options available to us, it is difficult to know which way to turn. Which energy source will be the answer to the problem we now face? This film accurately portrays the contributions each alternative offers, and illustrates how coal, uranium and conservation can help meet the immediate demands of our nation. (Jr High to Adult) ***An Electric Talking Picture — 1976*** — 13 minutes. This award winning film, produced by the Con Edison Electric Co., explains in an easily understood way, how a utility company operates, why we need to plan now for future generating plants and how conservation will help us all in the long run. (Elementary to Sr. High) ***Energy Management — 1976*** — 22 minutes. Energy conservation will play a key role in our quest to use the earth's resources properly. Learn many simple things you can do around the home and at work to save energy. (Jr. High to Adult) ***Mr. Edison's Dilemma — 1976*** — 24 minutes. How an electric utility operates is not easy to understand. The Edison Electric Insitute attempts to break it down into three basic operations; power production, supply and demand, and financing. Effective use of animation and actual film footage gives the viewer a clearer picute of how a utility operates. (Sr. High to Adult) ***Pacific Power and the Environment — 1976*** — 14 minutes. This film features three major areas of Pacific's environmental involvement; air, land, and water. Features interviews with Company personnel. Narrated by Bob Peterson, manager of Environmental Services at Pacific, the film explains strip mining and reclamation; electrostatic precipitators; and fishery resource work. (Jr. High to Adult)

Resources for Energy Education/Conservation

Pacific Power & Light (cont'd)

Films (contd)

Energy: Less is More — 1973 — 18 minutes. Considering the developing shortages of fossil fuels and the problems with other energy sources, we are faced with the need to cut back in areas of major energy use. Four principal areas are discussed: transportation, buildings, appliances, and waste. (Jr. High and up)

Mining and the Environment—1973—28 minutes. A close-up look at the Wyoming mining industry and the steps being taken to protect the environment in this resource rich state. Produced by the Wyoming Mining Association. (Jr. High and up)

Not Enough Power — 1972 — 15 minutes. A documentary filmed in Great Britain, this film dramatically shows what happens when there isn't enough power to meet the electricity demands of an entire country. (Jr. High and up)

Clean Town U.S.A. — 1971 — 14 minutes. The people of Franklin, Ohio, recycle household garbage, then market the reusable materials right in their own town. Award-winning documentary. (Jr. High and up)

Instructional Films:

Mans Material Welfare — 1977 — 27 minutes. R. DeVos of Amway Corporation, was filmed during a presentation on the free enterprise system to a group of Dow Chemical Co. employees. In the film DeVos tells his audience that many Americans are losing with their economic system. DeVos reveals how the American system can produce more than a socialistic or communistic society. He is able to take a complicated subject, and bring it into sharp focus in an interesting and understandable way. (Sr. High to Adult)

Will There always be an England? -- 1976 — This film was shown as a segment of a CBS "60 Minutes" program in November of 1976. It explores the plight of the British government and the effect it is having on the citizenry. Brings out the basic differences between free enterprise system and Socialism. (Jr. High to Adult)

Is A Career In The Electric Power Industry For You? — 1975 — 15 minutes. An excellent film that deals with one of the world's most vital industries, an industry that employs thousands of men and women working together to make possible the complicated process of bringing electricity to our homes, places of work, and recreational areas.

This film examines jobs ranging from power plant operation to customer service. Specific occupations include linemen, groundmen, and substation operators. (Jr. High and up)

Profit . . . You Gotta Be Out Of Your Cotton Pickin' Mind — 1974 — 9 minutes. This fast-moving cartoon is a story about the need for profit if business is to survive . . . in this instance a cotton gin. Profit is needed for expenses, growth and expansion. Business must stay alert to the basic wants of employees, in its constant quest for improvement of product, service and technology. (Jr. High and up)

Resources for Energy Education/Conservation

Films (contd)

Pacific Power & Light (cont'd)

Snaring the Sun — 1978 — 8½ minutes. Solar farms . . . space age developments . . . photovoltaic cells . . . Northwest solar systems. All of these projects are vital in our quest to harness the sun; that magnificent furnace that radiates more energy in one minute than man has produced throughout history. "Snaring the Sun", contains information on the largest solar developments. See what is new under the sun, and how it just might change our future. (Jr. High to Adult)

Solar Energy . . . Ready When You Are — 1977 — 16 minutes. Produced by Southern Illinois University, this program explores solar energy and its uses on a nation wide basis. Where solar energy works best, how it is being installed and is it really cost efficient. (Jr. High to Adult)

Water . . . Life, Light and Leisure — 1977 — 13 minutes. Water is an important part of our lives, and also an important part of Pacific Power. Producing electricity from our 33 hydro-electric dams is just a portion of the operation. Parks, recreation sites, waterfowl refuges and fish hatcheries are also maintained. See where they are, and how they are managed in this entertaining and informative program. (Jr. High to Adult)

Energy Conservation. It Does Make A Difference — 1977 — 16 minutes. If you want to know more about saving energy and money, this is the show to see. Untied States Congressman Mike McCormack, from the state of Washington, narrates this examination of specific conservation ideas for the home, for business and for industry. (Jr. High to Adult)

Tera One — 1977 — 14 minutes. Sponsored by Pacific Power & Light, Tera One is an energy conservation laboratory designed to measure methods of conservation in home construction, solar energy uses, insulation and many other energy saving ideas. Through this program you can tour what could be the house of the future. (Jr. High to Adult)

Capturing the Wild Current — 1976 — 10 minutes. Hydro-electricity is an important part of our lives, and this program looks at how we in the Northwest have used its energy in the past and how we plan to use it in the future. On the way we discover how dams and reservoirs help preserve the environment, how a fish hatchery works and what role our streams and rivers play in making electricity. (Jr. High to Adult)

Supplemental Sources of Energy — 1976 — 10 minutes. Several types of alternate energy forms are discussed in this presentation. Solar, geothermal and wind power are explored for their future potential. Actual uses of these three energy forms in Pacific Power's service territory are shown. (Also available on video tape)

Coal Resources, Land Reclamation — 1975 — 13 minutes. Coal, a major fuel for power producing plants, shares the spotlight with Pacific Power's environmental activity in land reclamation. The program traces the development of coal from its origin through the Industrial Age. Pacific Power's environmental philosophy is featured with emphasis placed on reclamation efforts being conducted at Company-owned coal mines.

Resources for Energy Education/Conservation

Pacific Power & Light (cont'd)

Films (contd)

Electricity — 1971 — 13 minutes. Live action, animated diagrams, working models and photographs of actual application are combined with original music in this short film to answer three basic questions about electricity: Where does it come from? How does it work? How does it get to me? (Elementary)

It's Everybody's Business — 1971 — Animated film in color tells the story of the competitive enterprise system. Film explains the opportunity for everyone to participate in the foundation of American life as we know it today. The checks and balances of the business system are analyzed, as is the effect of war on business. (Jr. High and up)

Donald in Mathmagicland — 1959 — 27 minutes. Donald Duck takes an exciting, animated journey through the Wonderland of Mathematics. Beginning with Pythagoras' discoveries, Donald learns that mathematics is the basis for all living and man-made things. He discovers the geometric make-up in nature, sports, games and architecture. A Walt Disney film. (Jr. High)

Light Is What You Make It — 1958 — 5 minutes. A Walt Disney film produced in cooperation with the National Better Light Better Sight Bureau. It is a colorful animated film comparing the function of the eye to that of a camera and explaining the function of proper light. Good teaching aid. (Eighth grade and up)

Ready Made Magic 1946 — 14 minutes. Cartoon illustrations depict the origin of electricity, and trace its development to modern times. Begins with Thales, the Greek philosopher who discovered static electricity in 600 B.C., and moves through the 1600's, 1700's and 1800's with the important inventions of Benjamin Franklin, Micheal Faraday and Thomas Edison. (Fourth Grade and up)

35mm Slide/Cassette Programs

Jim Bridger . . . Working Toward the Future — 1978 — 8½ minutes. Coal is turned into electricity every day of the year at the Jim Bridger steam-electric plant in Southwestern Wyoming. This program shows exactly how it is done. How coal is taken from the ground, burned to make electricity, and sent off to be used. Also, see what is being done to protect the air, the land and the water in this remote region. (Jr. High to Adult)

Making Light of Electricity — 1978 — 9 minutes. Learn how a lightbulb works from the old mountain man, Skinny Bones Jones. Produced by Pacific Power, this is a simple and fun way to learn the basics of electricity. (Grades 2 through 6)

Resources for Energy Education/Conservation

Pacific Power & Light (cont'd)

Films (contd)

Electricity From Plant to Home — 1975 — 10 minutes. A very good "nuts and bolts" description of how electricity is generated and transported to the home. Especially good for 4th grade through Jr. High students.

The Conservation Ethic — 1974 — 13 minutes. The program stresses the necessity for a "Conservation Ethic" of all types of energy fuels, not just electric power. Coal, oil and natural gas comprise more than 90 percent of the energy resources used in this country, and the public is consuming these fossil fuels at a rate of 50,000 times faster than they are formed. A "Conservation Ethic" must be encouraged, while the world develops new energy resources.

Pacific Power and the Environment — 1976 — 14 minutes. This film features three major areas of Pacific's environmental involvement; air, land, and water. Features interviews with Company personnel. Narrated by Bob Peterson, manager of Environmental Services at Pacific, the film explains strip mining and reclamation; electrostatic precipitators; and fishery resource work. (Jr. High to Adult)

Challenge at Glenrock — 1974 — 25 minutes. A detailed step-by-step report on how Pacific Power & Light Co. reclaims its strip mined coal lands. The film shows how the land is graded and shaped to erosion-resistant grades after the coal is removed. Stockpiled topsoil is then applied and graded, straw mulch added, and wheatgrass seed planted. Produced by PP&L. (Jr. High and up)

The Ballad of Steamy Valley — 1974 — A very good film highlighting geothermal energy, produced by Pacific Gas & Electric Co. It features the Geysers Project in northern California. (Jr. High and up)

What Time Does the Power Come On? — 1974 — This tense and thought-provoking film centers around a power outage that lasts from mid-morning until 4:30 p.m. Downtown traffic becomes snarled, schools close and freezers and refrigerators defrost. The pattern of life is drastically changed in just an instant. The luxury and security that has become so commonplace is threatened, and this is powerfully brought home in this...

A Question of Balance — 1974 — 28 minutes. This film documents the challenge facing America's electric power industry today and candidly discusses the complexities created by the needs of the public for more and more energy, and the serious difficulties being encountered by the electric utilities in preparing to meet these demands. (Sr. High and adult)

The Energy Challenge — 1973 — 28 minutes. Focuses on America's challenge to meet its energy demands. This exclusive environmental report brings one of the vital issues of our time sharply into view . . . providing a concise and penetrating study of man's endless search for new and abundant sources of energy. (Jr. High and up)

Resources for Energy Education/Conservation

Pacific Power & Light (cont'd)

Films (contd)

Joey's World — 1973 — 27 minutes. Is Joey's world in trouble? Yes. The problem? Energy. We're a fast moving society. We burn energy . . . we devour it. When we give Joey his world, there may not be enough energy left to keep it going. But don't worry, we may still deliver Joey a good world. Because we've come up with something. (Jr. High and up)

Energy vs. Ecology — 1973 — 28 minutes. Produced by Allis-Chalmers, this film shows strip mining in Utah and the land reclamation being done making the land suitable for cattle raising. (Jr. High and up)

Speakers

KITE SAFETY — Learning and safety combined for an interesting program. 2-6 grades

Energy Seminars
Pacific will provide speakers and material for energy seminars organized in conjunction with local schools or IEDs.

Educational Program:
These programs are conducted by Pacific's Energy Consultants and arrangements should be made by contacting the local office of Pacific Power.

News Flash An energy conservation program of student involvement. 3-6 Grades.

Insulation: Where to and How To A must for the "do-it-yourselfer." HS/College Adult

Do-It-Yourself Storm Window Kits and Water Heater Wraps — A practical step-by-step program for step-by-step energy savings. HS/College-Adult

A Home Maintenance Program — An inventory of potential energy savings in the home. HS/College Adult

Electrical Safety from A to Zap — Conservation through safety; a cartoon program geared to K-3 grades and 4-5 grades.

Resources for Energy Education/Conservation

Pacific Power & Light (cont'd)

Speakers

Hydroelectric Power — A primer for Northwest electrical supply studies. 7-12 grades

Coal and Land Reclamation — How Pacific preserves the environment with land reclamation. 7-12 grades

Energy Alternatives — Alternatives for producing electricity from solar, wind, geothermal, tidal, bio-mass and more . . . 7-12 grades

Careers with Pacific Power — A kaleidoscope of career opportunities within Pacific Power. HS/College adult

Free Enterprise — How and why the free enterprise system works best for the USA. HS/College Adult

Speaker Resources:

Astoria
Seaside
Obie O'Bryant — 325-5121

Lincoln City
John Lanfear — 994-2144

Coos Bay
Coquille
Vic York — 267-2167

Albany
Lebanon
Stayton
Sweet Home
Doug Simmons — 928-3311

Corvallis
Dallas
Independence
Alan Lindsay

Junction City
Dick Lacey — 998-3321

Cottage Grove
Larry Holverson — 942-3363

Bend
Prineville
Redmond
Madras
Keith Olds — 382-1011

Resources for Energy Education/Conservation

Speakers (contd)

Pacific Power & Light (cont'd)

Portland
Bob Morris — 238-2811

Hood River
Pendleton
Hermiston
Arlington
Don Cherrington — 386-1711
Rich Habel — 276-1411

Enterprise
Allen Schmid — 426-3158

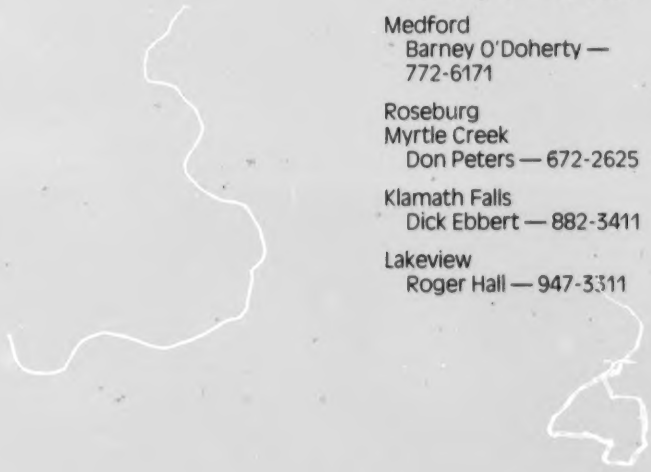
Grants Pass
Pat Wright — 479-3381

Medford
Barney O'Doherty — 772-6171

Roseburg
Myrtle Creek
Don Peters — 672-2625

Klamath Falls
Dick Ebbert — 882-3411

Lakeview
Roger Hall — 947-3311



Resources for Energy Education/Conservation

Agency/Organization	Agency Functions	Publications/Films
Portland General Electric Company 121 S.W. Salmon St. Portland, OR 97204 **Contact Person:** Orin Zimmerman General Manager of Conservation and Energy Management Dept. (503) 226-8456	Power distributor for Portland-Salem areas	**Publication:** Bulletin No. 1 (Electric Baseboard Space Heating) Bulletin No. 2 (Electric Radiant Ceiling Heating) Bulletin No. 3 (The Electric Furnace) Bulletin No. 4A (Ceiling Insulation) Bulletin No. 4B (Wall and Floor Insulation) Bulletin No. 5 (Heat Loss/Cost-of-Heating Estimates) Bulletin No. 6 (What is a Heat Pump?) Electric Heat Pumps Foil-in-the-Floor Getting the Most from Your Electric Furnace How to Select and Hang a Metal Storm Door How to Build Large Storm Doors for Sliding Glass Doors How to Caulk and Weatherstrip How to Install Weatherproof Thresholds How to Double-Glaze or Make Storm Windows for Irregular Shaped Windows How to Get the Most from Your Electric Heat System How to Hang a Wooden Storm Door How to Insulate Concrete Walls and Slabs How to Insulate Unfinished and Finished Attics How to Insulate the Exterior and Interior of Flat Roofs How to Insulate Water Heaters How to Weatherstrip Windows How to make Inexpensive Wooden Frame Storm Windows How to Make Your Own Inexpensive Metal Frame Storm Windows How to Read Your Electric Meter How to Stop Drafts Under Doors How to Wrap Duct Work How to Ventilate and Control Home Humidity How to Insulate the Heated or Unheated Garage Insulate Your Home (Envelopes Available) Rays of Hope (Solar, Envelopes Available) Watt Watchers' Guide (Envelopes Available)

Resources for Energy Education/Conservation

Portland General Electric (Cont'd)

Publications/Film

Publications: (Cont'd)

Agricultural Services

Agricultural Watt Watchers' Guide
Electric Motor Maintenance
Eliminate Waterlogging

Home Services

Fluorescent is a Beautiful Way to Save
Freezing Foods at Home
Home Services Newsletter, Issue No.
Hours to Minutes (Microwave)
Buying Fact Sheet for Microwave
How to Use Your Electric Range for All It's Worth
The Light Book

Films:

Energy-Related Films

The Paradox of Plenty — 15 minutes, color; Grades 7-12 Narrated by "Mr. Wizard," Don Herbert. Discusses conservation and future energy sources. The Magic Lantern Prod. 1977.

Energy 2000 — 25 minutes, color; Grades 6-12. Discusses past, present, and future energy problems and solutions. Screen News Digest. 1977.

Energy Realities — 15 minutes, color; Senior High, adult, technical groups. Describes energy research projects underway. Electric Power Research Institute. 1976.

Electricity — The Way it Works — 15 minutes, color; Grades 5 and up. Where it comes from. How it works. Screen News Digest. 1976

The Great Search for Power and Energy — 12 minutes, color; Grades 3-6. Traces kinds and uses of energy from caveman through nuclear age. Walt Disney. 1973.

Energy — The American Experience — 28 minutes, color; Grades 6-12. Traces history of energy development in the U.S. from pioneer days to the present. U.S. Energy Research & Development Admin. Bicentennial Film. 1976.

Mr. Edison's Dilema — 20 minutes, color; Grades 8-12. A film on utility economics in easily understood, semi-cartoon style. Illustrates relationship of inflation, interest rates, etc., to electric rates. Edison Electric Institute. 1976.

When the Circuit Breaks — America's Energy Crisis — 28 minutes, color; Grades 8-Adult. Describes current and future energy situation in U.S.; alternatives and need for conservation. Federal Energy Administration. 1975.

Powerline — Transportation of Energy — 11 minutes, color; Grades 6-10. How electricity is generated and distributed to your home. Barr films. 1972.

Exploring Electric Energy — 18 minutes; Grades 6-12. Tour through modern steam-electric generating station with simplified explanations of complex machinery. Edison Electric Institute. 1977

Resources for Energy Education/Conservation

Portland General Electric (Cont'd)

Publications/Films

Nuclear Films

Nuclear Power — Questions and Answers — 28 minutes, color; Grades 6-adult. Done in manner of all Mr. Wizard science films and TV shows. Mr. Wizard (Don Herbert) Prism Productions. 1975

Now That the Dinosaurs are Gone — 26 minutes, color; Grades 8-12. Presents the positive story of nuclear power for the nontechnical audience. Atomic Industrial Forum. 1974.

Career Films

Is a Career in the Electric Power Industry for You? — 15 minutes, color; Grades 7-adult. Gives broad picture of occupations necessary to generate and supply electricity to consumers. Counselor Films. 1974.

Conservation Films

The Energy Game — 15 minutes, color; Grades 5 and up. Describes current energy problems. Produced for Federal Energy Admin. by Eagle Films Lab. 1977.

Saving Energy at Home — 13 minutes, color; Grades 5-Adult. What you can do at home to save energy. Ramsgate Films. 1977.

Resource Recovery . . . The State of the Art — 20 minutes, color; Grades 6-12. This environmental film visits four refuse recycling plants in the U.S. to illustrate techniques and technology in the new science of resource recovery. Screen News Digest. 1978.

Solar Films

Tapping the Source — 18 minutes, color; Grades 6-12. Narrated by TV actor Leonard Nimoy. The film describes current solar technology for home space and water heating plus recent progress of technology associated with converting solar energy to electricity. Long Island Lighting Company. 1978.

Classroom Programs

1. Pacific Northwest Energy Resources — A slide program that explains how the resources of the Pacific Northwest were developed for the generation of electricity in the past; how they are presently being used; and a look to the future. Program can be adapted to Grades 6-12.

2. Field Trip Orientation — A short lecture/slide presentation which prepares and orients the students prior to an arranged field trip to PGE's hydroelectric facilities on the Clackamas River which is discussed elsewhere in this folder. Usually for Grades 5-8.

3. Generation and Distribution of Electricity — A slide/lecture program that explains the basics of the generation and distribution of electricity and includes tips on energy conservation in the Pacific Northwest Power Pool and the Pacific Northwest-Pacific Southwest intertie. For Grades 8-12.

4. Electrical Safety — A slide/film program accompanied by a demonstration that points out the potential dangers of electricty in and around the home and the do's and dont's of handling and using electricity safely. For Grades 4-6.

Resources for Energy Education/Conservation

Portland General Electric (Cont'd)

Films (contd)

5. Nuclear Power — A slide/lecture or film/lecture program that explains what nuclear energy is, how it works and how it fits into the long-range power plans of the Pacific Northwest. For Grades 8-12.

6. Energy Alternatives — Slide/lecture or film/lecture program which explains the Company's plans to develop additional nuclear plants; how its combustion turbine plants work; how a coal fired generating plant works; and PGE's plans for developing solar and geothermal generating resources. For Grades 8-12.

7. Careers in Electricity — A film depicting the many career opportunities in the electrical industry accompanied by a brochure which describes job opportunities at PGE. For selected student groups only.

(Note: The conservation of energy is an important part of all the above programs.)

Resources for Energy Education/Conservation

Portland General Electric (Cont'd)

Speakers

Presentation No. 1
Needs
Northwest Electric Energy Demand & Supply — This presentation is a factual discussion of the regional power demands of today and the future.

Presentation No. 2
Nuclear Energy — A basic, understandable, down-to-earth presentation about the complicated subject of nuclear energy.

Presentation No. 3
Energy Conservation — This is an interesting and timely presentation emphasizing money-saving methods of conserving electricity in the home.

Presentation No. 4
Electric Rates — Deals with questions such as: Why do electric rates keep going up? Will the cost of electricity continue to go up? How do PGE rates compare with utilities in other parts of the country?

Presentation No. 5
Recreation — PGE maintains nine camp and picnic grounds which are available for free public use. All were developed in connection with the Company's generating plants and all are located in Oregon within easy driving distances from Portland. This presentation describes the location of each and the facilities available for outdoor enthusiasts.

Presentation No. 6
Home Service
Five different subjects are available to clubs and groups having to do with electricity in the home.

1. Save Energy, Save Money — This is a chart and slide program which explains graphically: understanding your utility bill, what makes the meter go 'round, and how to conserve energy and dollars in and around the home.

2. Winterize to Economize —A program designed to help homeowners keep heat in and costs down in and around the home by insulating, weatherstripping, caulking and insulating storm doors and windows.

3. Yes, We Have No Dinosaurs — Designed primarily for youth groups, this interesting film leads the audience through the ages in discovering new energy sources.

4. Fluorescent Lighting --A slide program describing different structural applications of fluorescent lighting in the home. For common, everyday uses of litres, metres and grams (watts and kilowatts).

Presentation No. 7
Energy Resources — This presentation deals with the far out and not-so-far-out sources of energy such as solar, wind and geothermal to generate electricity.

Resources for Energy Education/Conservation

Agency/Organization	Agency Functions	Publications/Films	Information
Recycling Information Office 1234 S.W. Morrison St. Portland, OR 97205 (503) 229-5555 **Contact Person:** Recycling Switchboard Manager: Wayne Welty	Serves as a referral agency that locates and identifies all possible markets, pick-up and drop-off sites, etc., for recyclable materials.	**Publications:** ***Reduce, Reuse and Recycle*** **Periodicals:** Pamphlets, brochures, etc., available in quantity upon request. **Newsletters:** ***Beyond Waste***, monthly/free **Films:** Film catalog available that lists all available films, film strips, and etc., relative to recycling.	Provides speakers and literature upon request. Assists and advises schools on setting up recycling projects. **Speakers:**
Reynolds Metals Company Northwest Operations and Public Relations 1800 N.W. 1st Portland, OR 97201 (503) 248-1111 **Contact Person:** N.W. Speech Coordinator: Sherida Evans	Aluminum manufacturer	**Newsletters:** ***Reynolds Northwest News*** quarterly newsletter **Films:** (a) ***Metallic Tales*** — 10-minute and 29 minute versions on the uses of aluminum (b) ***America Needs Aluminum*** — 15 minutes (c) ***The Home That Recycling Built*** — 15 minutes (d) ***Aluminum — An Investment in Energy*** — 15 minutes (e) ***Energy for the Future*** — 15 min. slide show with tape cassette	Speakers are assigned on an ad hoc basis to give slide presentations on the following topics: (a) Energy Conservation in the Aluminum Industry. (b) Power Needs for the Future of the Northwest from the Aluminum Industry's point of view. (c) Why America Needs Aluminum (d) Aluminum Recycling (e) Pollution Abatement in the Aluminum Industry

Resources for Energy Education/Conservation

Agency/Organization	Agency Functions	Publications/Films	Speakers
Sierra Club 2637 S.W. Water Ave. Portland, OR 97201 (503) 222-1963	Proposes: to enhance and protect by all lawful means the natural resources and human environments of the United States and the Earth in general: to explore, enjoy, and preserve the scenic resources of the United States and its forests, waters, wildlife, and wilderness; to undertake and to publish scientific, literary, and educational studies concerning them; to educate the people with regard to the national resources of special scenic beauty and to enlist public interest and cooperation in protecting them.	**Publications:** ***Energy and the Sierra Club*** **Newsletters:** ***The Columbia Group Newsletter*** monthly/$15.00 per year **Films:** ***The New Willamette*** — 26 minutes shows how the once polluted Willamette River in Oregon was cleared up through cooperative efforts of citizens, industry and government. ***Blue Rock*** — 25 minutes, looks at the various ways water is used and some people who are concerned with water management.	Gives educators and students access to information relative to environmental concerns. **Speakers:** Speakers assigned on an ad hoc basis.
Tillamook People's Utility District 115 Pacific Avenue Tillamook, OR 97141 **Contact Person:** Energy Advisor: Bruce Stacy (503) 842-2535	Power distributor for the Tillamook area	**Films:** (a) ***Mr. Wizard*** — 22-minute film on nuclear energy asking questions on waste management and the need for nuclear power and coal (b) ***The Quiet Revolution*** — 27-min. film from the Rural Electric Association	**Speakers:** (a) Jack Madison — Manager (b) Bruce Stacy — Energy Advisor **Slide Presentations Only** (1) ***The Insulation Story*** (2) ***Home Remodeling and Energy Conservation*** (3) ***Understanding the Energy Problem*** (4) ***Energy Crisis — The Challenge . . . The Solution***
U.S. Corps of Engineers Public Affairs Office P.O. Box 2946 Portland, OR 97208 **Contact:** Mona Spenst (503) 221-6005	Reponsible for operation and maintenance of many of the dams in the Columbia River Basin	**Publications:** Great variety of literature on the hydroelectric system. **Films:** ***The New Willamette*** — 26 minutes shows how the once polluted Willamette River in Oregon was cleared up through cooperative efforts of citizens, industry and government. ***Blue Rock*** — 25 minutes, looks at the various ways water is used and some people who are concerned with water management.	**Speakers:** Speakers assigned on an ad hoc basis.

Resources for Energy Education/Conservation

	Agency Functions	Publications/Films
U.S. Corps of Engineers (Cont'd)		**Films (Cont'd):** ***Christmas Crisis on the Willamette*** — 14 minutes, black and white. Tells the story of the operation of flood control dams in the Willamette Valley, Oregon, during the floods of 1964 and January 1965. ***Columbia River Environment*** — 28 minutes. Depicts the accomplishments of the Corps of Engineers and other Federal agencies concerned with water resources in the development of the Columbia River Basin and comprehensive planning for future development. ***Control of the Columbia*** — 20 minutes. Depicts how the North Pacific Division, Corps of Engineers, regulates its reservoirs in coordination with those of other agencies for maximum flood control, power navigation, recreation, water quality, fish and wildlife and other benefits. ***The New Columbia*** — 28 minutes. Produced by British Columbia Hydro and Power Authority. Depicts and describes the development of the Columbia River Treaty Projects in Canada. For Corps of Engineers Films **Contact:** Modern Talking Picture Service Photo and Sound Co. 1205 N. 45th St. Seattle, WA 98103
U.S. Dept. of Energy Technical Information Center P.O. Box 62 Oak Ridge, TN 37830	Distributes energy education materials for U.S. Dept. of Energy	**Energy Curriculum Materials:** **Primary Grades** ***The Energy We Use*** (Grade 1). 41 pages. — Study units include "Energy in Wind," which involves a pinwheel parade to show the energy of the wind; and "The Sun," in which students watch two plants to see how the sun gives them energy. ***Community Workers and the Energy They Use*** (Grade 2). 1977. 80 Pages. — In units such as "What is Energy?" students explore the energy forms of light, heat, and motion. In "Community Workers Who Work Directly with the Sources of Energy," students look at the farmer, grocer, oil man, gasoline station attendant, and others. ***Energy and Transportation*** (Grade 3). 1978. 89 pages. — Using classification activities, picture studies, and other development approaches, students learn about transportation in the neighborhood, community and nation. ***Field Test Draft.*** **Upper Elementary** ***Bringing Energy to the People: Washington, D.C. and Ghana*** (Grades 6, 7). 1978. 80 pages. — This interdisciplinary unit provides a comparative overview between cultures that establishes two concepts: that energy is a basic need in all cultures; that energy use affects the way people live. ***Field Test Draft.***

U.S. Dept. of Energy (Cont'd)

Publications/Films

Networks: How Energy Links People, Goods, and Services (Grades 4, 5). 1978. 100 pages. — Six interdisciplinary lessons that investigate energy networks, such as electrical circuits, sources, conversions, and end use consumption. ***Field Test Draft.***

Science Activities in Energy (Grade 4-6). 1977. — A series of simple hands-on science experiments that are designed to help students learn about various forms and sources of energy. File-folder units have the following titles:

Chemical Energy—Science Activities in Energy. 26 pages.

Conservation—Science Activities in Energy. 28 pages.

Electrical Energy— Science Activities in Energy. 30 pages.

Solar Energy—Science Activities in Energy, 23 pages.

Your Energy World (Grades 4-6). 1978. — Consists of four file folder units. The first is an overview explaining about energy resources and problems. The other three emphasize energy-saving opportunities in transportation, the home, and the school. Contains a total of 18 spirit duplicating master student activity sheets, teacher guides and background, and a wall chart in color.

Junior High School

An Energy History of the United States (Grades 8, 9). 1977. 117 pages. — Charts the growth of American energy use and traces the history of the major sources of energy in the U.S. ***Field Test Draft.***

Energy, Engines and the Industrial Revolution (Grades 8, 9). 1977. 82 pages. — Study units include "The Giant Step of the Industrial Revolution," a student reader covering the years 1700-1860 with focus on energy; and "The Great Joule Robbery" in which the contribution of the heat engine (gasoline and diesel engines and steam turbines) to the Industrial Revolution is described.

Mathematics in Energy (Grades 8, 9). 1978. 72 pages. — This packet is designed to infuse energy into junior high math classes. The unit deals with a wide range of energy math including conversions, statistics, and the manipulation of energy units (BTU's, watts, calories, etc.). ***Field Test Draft.***

Transportation and the City (Grades 8, 9). 1977. 46 pages. — Study units include "Shut Down by Tin Lizzie," a student reading exercise showing how small American towns decline as a result of the automobile; and "The City of Windshields," which describes Los Angeles, the city that the automobile built.

Senior High School

Agriculture, Energy, and Society (Grades 10-12). 1977. 36 pages. — Interdisciplinary unit helps students examine the nature of present-day agricultural methods and study the impacts of these methods on existing energy resources.

Energy Conservation in the Home: An Energy Education/Conservation Curriculum Guide for Home Economics Teachers. 1977. 335 pages. — This resource book will help economics students learn how to conserve energy in their homes and lives.

Resources for Energy Education/Conservation

U.S. Dept. of Energy (Cont'd)

Publications/Films

How a Bill Becomes a Law To Conserve Energy (Grades 9, 11, 12). 1977. 118 pages. — Study units include "Case Study of a Bill," which describes how the 55 mph national speed limit became a law and takes the student through the lawmaking process; and "A Congressional Hearing" in which students play typical roles at a hearing on a national speed limit bill in a simulation game.

U.S. Energy Policy—Which Direction? (Grades 11, 12). 92 pages. — Designed as a companion to "How a Bill Becomes a Law To Conserve Energy," this unit concentrates on the executive branch of government and the various forces that go into making energy policy. ***Field Test Draft.***

Teacher Resources:

Award Winning Energy Education Activities for Elementary and High School Teachers. 1977. 38 pages. — Contains brief descriptions of prizewinning entries in the National Science Teachers Association (NSTA) Teacher Participation Contest conducted in 1976. The contest sought ideas that would fit easily into standard (science and nonscience) courses of study at various grade levels to further student understanding of important energy issues.

Fact Sheets on Alternative Energy Resources (1977). These materials, 4 to 8 pages in length, include the following titles:

Alternative Energy Sources: A Bibliography
Alternative Energy Sources: Environmental Impacts
Alternative Energy Sources: A Glossary of Terms
Breeder Reactors
Conventional Reactors
Electricity from the Sun I (Solar Photovoltaic Energy)
Electricity from the Sun II (Solar Thermal Energy Conversion)
Energy Conservation: Homes and Buildings
Energy Conservation: Industry
Energy Conservation: Transportation
Energy Storage Technology
Fuels from Plants (Bioconversion)
Fuels from Wastes (Bioconversion)
Geothermal Energy
New Fuels from Coal
Nuclear Fusion
Solar Heating and Cooling
Solar Sea Power (Ocean Thermal Energy Conversion)
Wind Power

Films

Energy Films Catalog. Describes more than 190 motion pictures that are available for free loan.

Resources for Energy Education/Conservation

Agency/Organization	Agency Functions	Publications/Films	Speakers
U.S. Department of Energy Seattle Region X 915 Second Avenue Seattle, WA 98174 **Contact Person:** Kathy Coronetz (206) 442-7285	Northwest Regional Office for the Dept. of Energy	**Publications:** Great variety of energy education materials **Contact:** Ellen McCraney (206) 442-7285 **Films:** Great variety of energy films **Contact:** Film Librarian (206) 442-7285	Speakers assigned on an ad hoc basis; **Contact:** Kathy Coronetz (206) 442-7285
Yamhill County Energy Office County Courthouse McMinnville, OR 97128 **Contact Person:** Marsha Mackie (503) 472-9371 Ext. 229	Energy education in Yamhill County	**Films:** Slides are available that can supplement talks	Speakers assigned on an ad hoc basis.

SECTION II
ANNOTATED TEACHER'S BIBLIOGRAPHY

Annotated Teacher's Bibliography

Curriculum Guides and Resource Books

American Gas Association, Education Services, 1515 Wilson Boulevard, Arlington, Virginia 22209. Provides many booklets, pamphlets, kits, filmstrip on natural gas. Specifically for grade 5 you may be interested in "Natural Gas Serves Our Community" (kit)—"Flames and Energy"

A Teacher's Introduction to Energy and Energy Conservation: Secondary. — Ohio State Department of Education, Columbus. 1975. This document is intended to give secondary school teachers background information and general suggestions for teaching units and correlated learning activities related to energy and energy conservation.

Energy Education Materials Inventory (e.e.m.i.), Part One: Print Materials. — Energy and Man's Environment, Inc., Portland, Or. 1976. This publication contains a listing of print materials, including the following: teacher's guides, curriculum guides, ditto masters, textbooks, pamphlets, and posters.

Energy Education Materials Inventory (e.e.m.i.) Part Two: Non-print Materials. Energy and Man's Environment Inc., Portland, Or. 1976. Included in this part is a listing of non-print materials including the following: films, filmstrips, slides, transparencies, audio-tapes, and records.

Energy Education Materials Inventory (e.e.m.i.) Part Three: Non-print materials. Energy and Man's Environment, Inc., Portland, Or. This publication contains a listing of 16mm films.

Energy Education Materials Inventory (e.e.m.i.) Part Four: Kits, Games & Miscellaneous Curricula. Energy and Man's Environment, Inc., Portland, Oregon. Included in this part is a listing of kits, games, and miscellaneous curricula.

Energy. Environmental Education Project, ESEA Title III, Section 306 Topeka Public and Parochial Schools, 1601 Van Buren, Topeka, Kansas 66612. Objectives are listed, along with activities which meet the stated objectives. Teachers select only those appropriate to the objectives for their students.

The Energy Challenge. Federal Energy Administration, The Energy Challenge, Box 14306, Dayton, Ohio 45414. Twenty-five spirit duplicating activity masters designed for grades 5 through 8. Also contains a teacher's guide section.

Energy Conservation Classroom Kits 1-3, 4-6. Southern California Edison Company, Educational Services, Room 397, P.O. Box 800, Rosemead, California 91770. Colorful kits to help teachers teach about energy conservation. There are folders, inspector cards, stickers, certificates. The teacher's guide contains ideas and lesson plans, in addition to duplicating masters.

Agriculture, Energy and Society (Grades 10-11-12), ***Interdisciplinary Student/Teacher Materials on Energy, The Environment, and The Economy.*** 1976. One in a series of classroom materials developed by the National Science Teachers Association for the U.S. Energy Research and Development Administration in an effort to increase public understanding of U.S. Energy Resource potentials and energy technology options.

Curriculum Guides and Resource Books (Con't)

Energy Conservation In The Home, An Energy Education/Conservation Curriculum Guide for Home Economics Teachers. University of Tennessee Environment Center and College of Home Economics for ERDA. A curriculum guide for home economics teachers designed to help students conserve energy in their homes and in their lives.

Energy, Engines, and the Industrial Revolution. (Grades 8-9), ***Interdisciplinary Student/Teacher Materials on Energy, The Environment and the Economy.*** National Science Teachers Association for the U.S. Energy Research and Development Administration. 1976. One in a series of classroom materials developed in an effort to increase public understanding of U.S. energy resource potentials and energy technology options.

How A Bill Becomes a Law to Conserve Energy (Grades 9-11, 12), ***Interdisciplinary Student/Teacher Materials On Energy, The Environment and the Economy.*** Another in the series of classroom materials developed by the National Science Teachers Association for U.S. Energy Research and Development Administration in an effort to increase public understanding of U.S. energy resource potential and energy technology options.

Transportation and the City (Grades 8-9), ***Interdisciplinary Student/Teacher Materials on Energy, The Environment, and the Economy.*** NSTA for ERDA. 1976. Another in a series of classroom materials developed by the National Science Teachers Association for the U.S. Energy Research and Development Administration in an effort to increase public understanding of U.S. energy resource potentials and energy technology options.

Energy-Environment Materials Guide, Kathryn E. Mervine and Rebecca E. Cawley, National Science Teachers Association, Washington, D.C., 1975. Handy little book containing annotated bibliographies for teachers and students.

Energy—Environment Mini-Unit Guide, Stephen M. Smith, Editor, 1975. National Science Teachers Association, Washington, D.C., Materials designed to stimulate decision making in young children and to make teaching more interdisciplinary. It is filled with many activities and guidelines.

Energy Crisis Teaching Resources, Oregon State Board of Education, Salem, Oregon, 1973. Many very useful activities to be used in stressing individual responsibility towards energy crisis problems.

Energy for Today and Tomorrow, San Diego City-County Schools Energy Education Committee, Department of Education, San Diego County, 6401 Linda Vista Road, San Diego, California 92111, 1975. Activities for students in grades kindergarten through six. These help to create an awareness of the need for dealing with energy problems.

Curriculum Guides and Resource Books (Con't)

Energy and Man's Environment, Jones, John, D.Ed., Editor, 1976, Energy and Man's Environment, Inc., 0224 S.W. Hamilton, Suite 301, Portland, Oregon 97201. Interdisciplinary teacher's guides to energy and environmental activities. Involves 8 books—Activity Guide, Uses of Energy, Sources of Energy, Impacts of Energy, Limits of Energy, Conversion of Energy, Future Sources of Energy, Glossary.

Teacher's Handbook of Energy, Colorado Department of Education, Denver, Colorado 80023, 1974. Provides teachers with information on energy and instructional activity suggestions.

Wide World of Energy Kit, Walt Disney Productions, 1976. Walt Disney Educational Media Company, 500 South Buena Vista Street, Burbank, California 91521. Kit contains cassette and color filmstrip titled, "The Search for Power and Energy;" 18 full-color study prints; Energy Game; 30 copies of the energy comic book, "Mickey Mouse and Goofy Explore Energy;" 10 energy activity cards; teacher's guide with information and additional activities.

Angell, Peterson, et al, ***Energy, Food and You***, interdisciplinary curriculum guide, secondary level. Subject: global food, population and resource problems; basic energy issues; the U.S. food system and energy; energy efficient alternatives.

Power Generation Alternatives, Seattle City Light. Gordon Vickey, Superintendent. 1972, 2nd. Ed. An excellent consideration of the range of energy sources available to us in the Northwest.

SECTION III
MULTI -MEDIA MATERIALS

Multi -Media Materials

"The American Dream is Running Out of Fuel."
18 minutes, color, $230 or $19-rent (Gr. 5-8)
Films, Inc.
1144 Wilmette Avenue
Wilmette, ILL 60091

Electricity from Heat and Sunlight.
8mm film loop. color, $23.50 (Gr. 4-12)
Doubleday Multimedia
P.O. Box 11607
Santa Ana, CA 92705

Energy and Man.
10 minutes, color, rental $12.50 (primary-junior high)
McGraw-Hill,
1221 Avenue of the Americas
New York, N.Y. 10020

Ecology Activity Cards
BFA Educational Media
2211 Michigan Avenue
Santa Monica, CA 90404

Ecology: Understanding the Crisis
Series No. 6454, 1972
Encyclopedia Britannica Educational Corporation
425 North Michigan Avenue
Chicago, ILL 60611

Energy-Environment Materials Guide
National Science Teachers Association
1742 Connecticut Ave., N.W.
Washington, D.C. 20009

Energy Crisis:
What We Can Do
The Alliance for Environmental Education
1785 Massachusetts Avenue
Washington, D.C. 20036

Energy Crisis Game
Upper elementary and junior high
For 2-6 players
Information, Inc.
New York, N.Y. 10001

The Energy Films Index
A Teacher's Guide to Current Energy Films
Energy & Man's Environment
0224 S.W. Hamilton, Suite 301
Portland, OR 97201

The Economics Of The Energy Problem
filmstrip and teachers guide
The Joint Council on Economic Education
Oregon State University
Corvallis, OR

The Household Energy Game
(Free)
University of Wisconsin Sea Grant College Program
1800 University Avenue
Madison, WI 53706

Films On Energy
Bonneville Power Administration
United States Department of Energy
Portland, OR 97208

From
AMERICAN GAS ASSOCIATION
Educational Services
1515 Wilson Blvd.
Arlington, VA 22209

"NATURAL GAS SERVES OUR COMMUNITY," a cut-out kit with a text, depicting the story of gas from the field to the city. Single copies only. For grades 2 and 3, ask for #N00170; For grades 4-6, request #N00160.

"HOW YOUR GAS METER WORKS," a teaching kit consisting of a wall chart, a duplicating master, and a teacher's guide. Junior high level. Single copies only. Ask for #N00100.

From
AMERICAN JEWISH COMMITTEE
165 East 56th Street
New York, NY 10022

"ENERGY CRISIS—Questions and Answers," a booklet explaining why there is an energy shortage, what caused it, what we can do about it, etc. Single copies only.

From
AMOCO OIL COMPANY,
TEACHING AIDS
Box 5910-A, MC 3705
Chicago, ILL 60680

"ENERGY CRISIS (WHAT YOU CAN DO ABOUT IT)" a kit of four duplicating masters with instructions for teaching about current energy demands and sources, conservation, and future sources. Designed for grades 4-6. Single copies only.

From
CHARLES EDISON FUND
David O. Schantz, Curator
101 S. Harrison Street
East Orange, NJ 07018

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